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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the application of : D J Stacey et al
Serial No. : 09/416,679
Filed : October 12, 1999
For : ATM Common Part Sub-Layer Device and Method
Examiner : T L Lee
Art Unit : 2697
Customer number : 23644

REPLY BRIEF PURSUANT TO 37 C.F.R. §41.41

Honorable Director of Patents and Trademarks
PO Box 1450
Alexandria, VA 22313-1450

Dear Sir:

In reply to the Examiner's Answer mailed September 10, 2004, applicants make the following submission.

Remarks

Applicants maintain as pertinent the entirety of the arguments presented in the Appeal Brief filed February 12, 2004. It should be noted that the content of the arguments section of the Appeal Brief was substantially based on the opinion of a leading expert in the field of Asynchronous Transfer Mode (ATM) telecommunications technology. The expert's opinion can be presented in the form of an Affidavit if this would be considered to assist the application process.

Applicants refer to the Examiner's "Response to Argument" section (section (11)) of the Examiner's Answer and comments as follows:

1. Westberg '309 is not compatible with the ATM standard. It is a proprietary solution to the problem of multiplexing traffic of a number of different adaptation layers, AAL-1, AAL-5 and AAL-m, into the same ATM virtual channel connection (VCC). As such, it requires that control information is sent to a receiving station to identify the format of all payloads explicitly, rather than implicitly, as is done in systems implementing the ATM standard, for which there is only one AAL per VCC; i.e. the VPI/VCI pair implicitly provides the information. In Westberg '309, communications data and the corresponding control data are multiplexed into a single data stream which is then transmitted to a receiving station. This is a solution to the aforementioned problem that, while based on the ATM standard, is a solution specific to a particular telecommunications equipment vendor (Ericsson). Any vendor's equipment built to the relevant ATM standards would not interpret the transmitted information correctly and thus would be unable to successfully receive and process the data stream taught by Westberg '309. There is no core ATM standard for more than one AAL type being able to share a single Virtual Connection (VCC). There may be only one AAL type per ATM VCC.

2. Westberg '353 is also not compatible with the ATM standard, being also a proprietary solution specific to a particular telecommunications equipment vendor and being directed to a proprietary assembly of a circuit emulation service in AAL2. As such, Westberg '309 and Westberg '253 do not address the same technical issues and a skilled person would not seriously contemplate combining the teachings of these two references. In any event, the combination of Westberg '309 and Westberg '353 does not teach how to partition an ATM adaptation layer. The functions described in Westberg '353 only relate to what is now termed in ATM standard compatible systems as the service specific convergence sub-layer (SSCS). As such, Westberg '353 does not specify any CPS functionality and so, like Westberg '309, does not teach the functional partitioning of a CPS ATM adaptation device as claimed in the present application.

3. Applicants have clearly established in the Appeal Brief that in Westberg '309 it is necessary to buffer the cell stream at the receiver in order to extract the explicit control information that is used to maintain communication data alignment. This requires a special architecture comprising Control Info Capture Logic, Control Info Addressing Logic and Address Decoder, an architecture that is absent from ATM standard compatible systems where information identifying the format of payloads is implicitly carried in the ATM cell stream. As applicants have explained in the Appeal Brief, while Westberg '309 is silent on the need to buffer the cell stream at the receiver, this is because the description is incomplete. A person skilled in the art would recognize that a batch encoding of the control information sent infrequently would have to be arranged to precede the user data to allow decoding with the result that this requires buffering on receipt. In contrast, the CPS egress path of the CPS adaptation device of the present invention is configured as a flow-through (non-buffered) path.

4. The Examiner suggests that if the specification of Westberg '309 is incomplete then the same must apply to the present application. This conclusion is

incorrect. As already stated, in the case of ATM standard compatible systems, information identifying the format of payloads is implicitly carried in the ATM cell stream. Thus, such systems do not require a buffer at the receiver to buffer the cell stream for the purpose of extracting transmitted control information. While buffers for other purposes are taught in ATM standard compatible systems, the present invention comprises a recognition that it is possible to operate a CPS egress path as a flow-through path such that, for AAL2 switching applications, traffic received on the CPS egress path can be immediately re-routed internally within the CPS ATM adaptation device onto a CPS ingress path without being delayed by unnecessary buffering in the CPS egress path. Such traffic will be buffered as necessary in the common memory (primary buffer) of the CPS ingress path to which it has just been re-routed prior to being re-transmitted on the ATM broadband network. In the preferred embodiment of the invention incorporating a primary buffer in the SSCS egress path, traffic flowing through the CPS egress through path which has not been switched to the CPS ingress path for re-transmission on the ATM network is then buffered as necessary in the SSCS egress path prior to being disassembled.

5. A skilled person would clearly understand from the disclosure of the present invention what is meant by the term "flow through" which is fully supported by the specification.

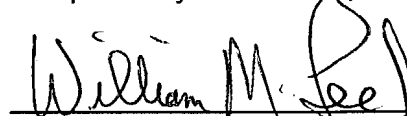
6. The Examiner appears to be working backwards from the applicants' disclosure to attribute features of the present invention to a combination of the two Westberg references. This is not a permissible manner of formulation of a rejection under 35 U.S.C. §103. It can be concluded that the use of explicit control information to identify the format of data in the cell stream received at the receiver in the case of Westberg '309 requires the use of buffering of the cell stream at the receiver despite the absence of any explicit disclosure to this effect in Westberg '309. It can also be concluded that the absence of such discussion does not by its absence constitute a teaching or suggestion of operating the CPS egress path of an

ATM common part sub-layer (CPS) adaptation device as a flow through path as claimed in the present case under appeal in a manner which meets the requirements of 35 U.S.C. §103. Thus, it can be concluded that the combination of the two Westberg references does not teach or suggest all of the features of the independent claims of the present application.

7. Applicants request that the Examiner be reversed and a patent be issued without further delay.

November 10, 2004

Respectfully submitted,

A handwritten signature in black ink, appearing to read "William M. Lee, Jr.", is written over a horizontal line.

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CERTIFICATE UNDER 37 CFR 1.8(a)

I hereby certify that this correspondence is being deposited with the United States Postal Service via First Class Mail in an envelope addressed to:

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on November 10, 2004

Minnie McBride
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